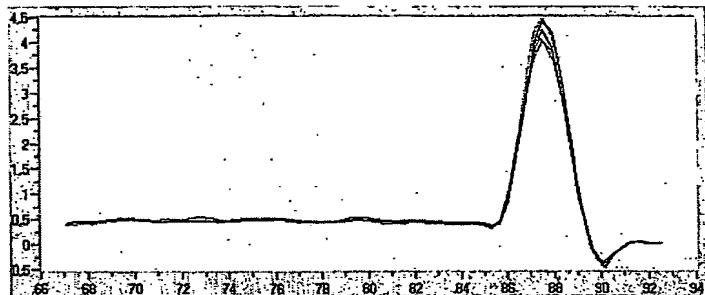
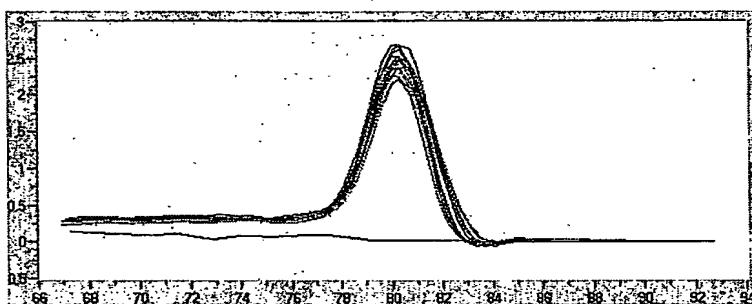
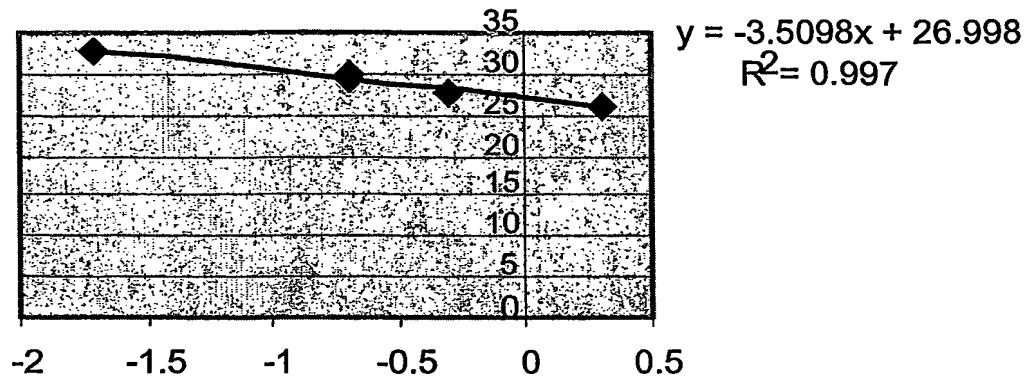
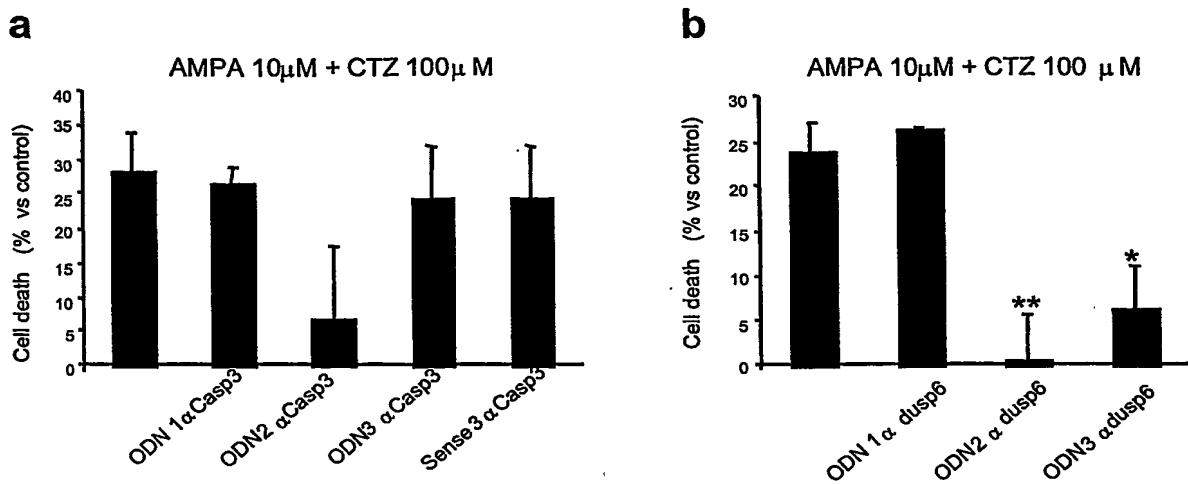


1/10

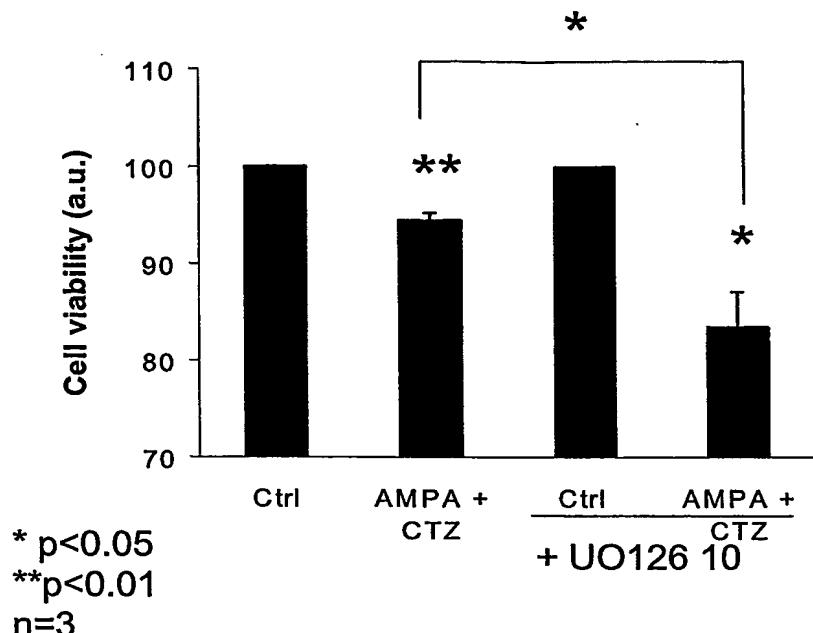
**FIGURE 1a****FIGURE 1b**

2/10

**FIGURE 2**

**FIGURE 3**

4/10

**FIGURE 4**

5/10

FIGURE 5

86.713% identity (88.783% ungapped) in 1716 nt overlap  
(172-1875:189-1876)

	150	160	170	180	190	200
human	CACTAAGAGCCAGCGCTGCAGCTGGTGCAGAGAGAACCTCCGGCTTGACTTCTGTCTCG					
rat	GATTCAATTGACTCTGAGAGTGATCTGGTGCAGAGGGACCACCGGTTGGCTTCG	160	170	180	190	200
						210
	210	220	230	240	250	260
human	TCTGCCCAAGGCCGCTAGCCTCGGCTGGGAAGGGCAGGGCGGAATTAAACCCCGCTCCG					
rat	CCTTCCTAA--CCGCTAGCTTCGGCTGGAA---AGGCCGAATCAAACCCGGCTCCG	220	230	240	250	260
						270
	270	280	290	300	310	320
human	AGAG-CGCACGTTCGCGCGGTCGCTCGGCCATTGCCTGCCCGAGGGCGTCTGGTAG					
rat	AGAGCCGGAGCTCTCACGGCTTGC-TTGGCCTATGCCTGCCCGAGGGCGTCTGCTAG	280	290	300	310	320
	330	340	350	360	370	380
human	GCACCCGCCCTCTCCCGCAGCTCGACCCCCATGATAGATAACGCTCAGACCCGTGCCCTT					
rat	GCACCCGCCCTCTCCCTGCAGCTCGACCCCCATGATAGATAACGCTCAGACCCGTGCCCTT	330	340	350	360	370
						380
	390	400	410	420	430	440
human	CGCGTCGGAAATGGCGATCAGCAAGACGGTGGCTGGCTCAACGAGCAGCTGGAGCTGG					
rat	CGCGTCGGAAATGGCGATCAGCAAGACGGTGGCTGGCTCAACGAGCAGCTGGAGCTGG	390	400	410	420	430
						440
	450	460	470	480	490	500
human	CAACGAGCGGCTGCTGATGGACTGCCGCCGAGGAGCTACGAGTCGTCGCACAT					
rat	CAACGAACAGCTGCTGATGGACTGCCGACCGCAGGAGCTACGAGTCGTCGCACAT	450	460	470	480	490
						500
	510	520	530	540	550	560
human	CGAGTCGGCCATCAACGTGCCATCCCCGGCATCATGCTGCAGAAGGGTAA					
rat	CGAACATGCCATCAACGTGCCATCCCCGGCATCATGCTGCAGAAGGGCAA	510	520	530	540	550
						560
	570	580	590	600	610	620
human	CCTGCCGGTGCAGCGCCTTACGCGCGGCGAGGACCGGGACCGCTTACCCGGCGCTG					
rat	CCTGCCGGTGCAGCGCCTTACGCGCTGCAGGACCGGGACCGCTTACCCAGGCGCTG	570	580	590	600	610
						620
	630	640	650	660	670	680
human	TGGCACCGACACAGTGGTGCCTACGACGAGAGCAGCAGCGACTGGAACGAGAACACAGG					
rat	CGGCACCGACACCGTGGTGCCTACGACGAGAACAGCAGCGACTGGAATGAGAACACAGG	630	640	650	660	670
						680

6/10

	690	700	710	720	730	740
human	CGGGCAGTCGTTGCTCGGGCTGCTGCTCAAGAAGCTCAAGGACGAGGGCTGCCGGGCCTT					
	::	:::	:::	:::	:::	:::
rat	TGGAGAGTCGGTCCTCGGGCTGCTGCTCAAGAAACTCAAAGACGAGGGCTGCCGGGCCTT					
	690	700	710	720	730	740
	750	760	770	780	790	800
human	CTACCTGGAAGGTGGCTTCAGTAAGTCCAAGCCGAGTTCTCCCTGCATTGCGAGACCAA					
	:::	:::	:::	:::	:::	:::
rat	CTACCTGAAAGGTGGCTTCAGTAAGTCCAAGGCCGAGTTGCCCTGCACTGCGAGACCAA					
	750	760	770	780	790	800
	810	820	830	840	850	860
human	TCTAGACGGCTCGTAGCAGCAGCTGCCGCCGTTGCCAGTGCTGGGCTCGGGGGCCT					
	:::	:::	:::	:::	:::	:::
rat	TCTAGACGGCTCGTAGCAGCAGCTCCCCGCCCTGCCAGTGCTGGGACTCGGGGGCCT					
	810	820	830	840	850	860
	870	880	890	900	910	920
human	GCGGATCAGCTCTGACTCTCCTCGGACATCGAGTCTGACCTTGACCGAGACCCCAATAG					
	::	:::	:::	:::	:::	:::
rat	GAGGATCAGCTCCGACTCTCCTCGGACATTGAGTCTGACCTTGACCGAGACCCCAATAG					
	870	880	890	900	910	920
	930	940	950	960	970	980
human	TGCAACAGACTCGGATGGTAGTCCGCTGTCCAACAGCCAGCCTTCCCTCCAGTGGAGAT					
	:::	:::	:::	:::	:::	:::
rat	TGCAACGGACTCCGATGGCAGCCGCTGTCCAACAGCCAGCCTTCCCTCCGGTGGAGAT					
	930	940	950	960	970	980
	990	1000	1010	1020	1030	1040
human	CTTGCCTTCCTCTACTTGCGAAAGACTCCACCAACTTGGACGTGTTGGAGGA					
	:::	:::	:::	:::	:::	::
rat	TTTGCCTTCCTTACCTGGCTGTGCCAAGGACTCTACTAACATTGGACGTGTTGGAGA					
	990	1000	1010	1020	1030	1040
	1050	1060	1070	1080	1090	1100
human	ATTCGGCATCAAGTACATCTTGAACGTCACCCCAATTGCCAATCTCTTGAGAACGC					
	::	:::	:::	:::	:::	::
rat	GTTTGGCATCAAGTACATCTTGAACGTCACCCCAATTGCCAATCTGTTTGAGAACGC					
	1050	1060	1070	1080	1090	1100
	1110	1120	1130	1140	1150	1160
human	AGGAGAGTTAAATACAAGCAAATCCCCATCTCGGATCACTGGAGCCAAAACCTGTCCA					
	::	:::	:::	:::	:::	:::
rat	AGGGAGTTCAAGTACAAGCAAATTCCATCTGATCACTGGAGCCAAAACCTGTCCA					
	1110	1120	1130	1140	1150	1160
	1170	1180	1190	1200	1210	1220
human	GTTTTCCCTGAGGCCATTCTTCTAGATGAAGCCCGGGGCAAGAACGTGGTGTCTT					
	:::	:::	:::	:::	:::	::
rat	GTTTTCCCTGAGGCCATTCTTCTAGATGAAGCCCGAGGCAAAACTGTGGTGTCTT					
	1170	1180	1190	1200	1210	1220

	1230	1240	1250	1260	1270	1280
human	GGTACATTGCTGGCTGGCATTAGCCGCTCAGTCAGTCAGTGACTGTGGCTTACCTTATGCA					
rat	GGTGCATTGCTGGCGGGCATCAGCCGCTCCGTACGGTGACAGTGGCTTACCTTATGCA					
	1230	1240	1250	1260	1270	1280
human	GAAGCTCAATCTGTCGATGAACGATGCCATGACATTGTCAAAATGAAAAAATCCAACAT					
rat	GAAGCTCAACTGTCCATGAACGATGCCATGACATTGTCAAAATGAAGAAGTCCAACAT					
	1290	1300	1310	1320	1330	1340
human	ATCCCCTAACCTCAACCTCATGGGTCAAGCTGCTGGACTTCGAGAGGACGCTGGGACTCAG					
rat	CTCTCCCAACTCAACCTCATGGGCCAGCTGCTTGACTTTGAAAGGACCCTGGGACTCAG					
	1350	1360	1370	1380	1390	1400
human	CAGCCCCATGTGACAACAGGGTTCCAGCACAGCAGCTGTATTTCACCACCCCTCCAACCA					
rat	CAGCCCCCTGTGACAATCGTGTCCCCGCACAGCAGCTACTTCACCGGCCCTCCAACCA					
	1410	1420	1430	1440	1450	1460
human	GAATGTATACCAGGTGGACTCTCTGCAATCTACGTGAAAGACCCCCACACCCCTCCTGCT					
rat	GAATGTCTACCAAGTGGACTCCCTGCAATCTACGTGAAAGGACCC-CACCTTTCCCTAGCC					
	1470	1480	1490	1500	1510	1520
human	GGAAATGTGCTGGCCCTTCAGCAGTTCTCTT-GGCAGCATCAGCTGGGCTGCTTCTT					
rat	GGGA-GTGTCT--CATTCCCTCAGTTCTCTTGGCAGCATCGACCAGGCTGCTTTCTT					
	1530	1540	1550	1560	1570	
human	1530	1540	1550	1560	1570	
rat	1530	1540	1550	1560	1570	1580
	1580	1590	1600	1610	1620	1630
human	GTGTGTGGCCCCCAGGTGTC-AAAATGACACCAGCTGTCTGTACTAGACAAGGTTACCAAG					
rat	GTGTGTGGCCCCCAGGTGTCAAAATGTCACCAGCTGTCTGTATTAGACAAGGTTGCCAAG					
	1590	1600	1610	1620	1630	1640
human	TGCGGAATTGGTTAATACAAACAGAGAGATTGCTCCATT-----TCTTTGGAATAACA					
rat	TGCAAAATTGGTTATTACGGAGGGAGAGATTGCTCCATTGCTTGTGTTTTGGAAGGACA					
	1650	1660	1670	1680	1690	
human	1640	1650	1660	1670	1680	1690
rat	1650	1660	1670	1680	1690	1700
	1700	1710	1720	1730	1740	1750
human	GGACATGCTGTATAGATACAGGCAGTAGGTTGC-TCTGTACCCATGTGTACAGCCTACC					
rat	GGGTATGCTGTCTAGATCAGGCAATAGGTTGCTTTGTACCC-----CAGCCTACC					
	1710	1720	1730	1740	1750	

8/10

	1760	1770	1780	1790	1800		
human	CATGCAGGGACTGGGATTGAGGACTTCCAG	---	GCGCATAGGGTAGAACCAAATGATAG				
	:: :::::::::::	::	:: ::::	:: :::	:: :	:	
rat	CAAGCAGGGACTGGACCTC	----	CATCCAGATAGAGGGTAGGACA	-AAGGAGCCG	--GG		
	1760	1770	1780	1790	1800	1810	
	1810	1820	1830	1840	1850	1860	
human	GGTAGGAGCATGTGTTCTTAGGGCCTTGTAAGGCTGTTCCCTTGCATCTGGA	ACTGA					
	:: :::::::::::	:: :::::::	:: ::::::::::::	:: ::::::::::::	:: ::::::::::::	::	
rat	GATAGGAGCATGTGTTCTTAGGGCCACATATGGCTGTTGCATCTGGA	ACCAA					
	1820	1830	1840	1850	1860	1870	
	1870	1880	1890	1900	1910	1920	
human	CTATATAATTGTCTTCAGTGAAGACTAAATTCAATT	TTGCATATAGAGGAGCCAAAGAGA					
	:::::::						
rat	CTATATTGTCTTCAGTGAAGACTGATTCAACTT	GCGTATAGTGGAGCCAAAGAGATTT					
	1880	1890	1900	1910	1920	1930	

9/10

**FIGURE 6**

98.425% identity (98.425% ungapped) in 381 aa overlap (1-381:1-381)

	10	20	30	40	50	60
human	MIDTLRPVPFASEMAISKTVAWLNEQLELGNERLLLMDCRPQELEYESSHIESAINVAIPG					
rat	:::::::	:::::::	:::::::	:::::::	:::::::	:::::::
rat	MIDTLRPVPFASEMAISKTVAWLNEQLELGNEQLLLMDCRPQELEYESSHIESAINVAIPG					
	10	20	30	40	50	60
	70	80	90	100	110	120
human	IMLRLQKGNLPVRALFTRGEDRDRFTTTCGTDTVVLYDESSSDWNENTGGESLLGLLK					
rat	:::::::	:::::::	:::::::	:::::::	:::::::	:::::::
rat	IMLRLQKGNLPVRALFTRCEDRDRFTTTCGTDTVVLYDENSSDWNENTGGESVLGLLK					
	70	80	90	100	110	120
	130	140	150	160	170	180
human	KLKDEGCRAFYLEGGFSKFQAEFSILHCETNLDGSSSSSPPLPVGLGGIRISSDSSDI					
rat	:::::::	:::::::	:::::::	:::::::	:::::::	:::::::
rat	KLKDEGCRAFYLEGGFSKFQAEFALHCETNLDGSSSSSPPLPVGLGGIRISSDSSDI					
	130	140	150	160	170	180
	190	200	210	220	230	240
human	ESDLDRDPNSATDSQDGSPLSNSQPSFPVEILPFLYLGCAKDSTNLDVLEFGIKYILNVT					
rat	:::::::	:::::::	:::::::	:::::::	:::::::	:::::::
rat	ESDLDRDPNSATDSQDGSPLSNSQPSFPVEILPFLYLGCAKDSTNLDVLEFGIKYILNVT					
	190	200	210	220	230	240
	250	260	270	280	290	300
human	PNLPNLFENAGEFKYKQIPISDHWSQNLSQFFFPEAISFIDEARGKNCGVLVHCLAGISRS					
rat	:::::::	:::::::	:::::::	:::::::	:::::::	:::::::
rat	PNLPNLFENAGEFKYKQIPISDHWSQNLSQFFFPEAISFIDEARGKNCGVLVHCLAGISRS					
	250	260	270	280	290	300
	310	320	330	340	350	360
human	VTVTVAYLMOKLNLSMNDAYDIVKMKKSNIISPNNFMGQLLDFERTLGLSSPCDNRVPAQ					
rat	:::::::	:::::::	:::::::	:::::::	:::::::	:::::::
rat	VTVTVAYLMOKLNLSMNDAYDIVKMKKSNIISPNNFMGQLLDFERTLGLSSPCDNRVPAQ					
	310	320	330	340	350	360
	370	380				
human	QLYFTTPSNQNYYQVDSSLQST					
rat	:::::::	:::::::	:::::::	:::::::	:::::::	:::::::
rat	QLYFTAPSQNYYQVDSSLQST					
	370	380				

10/10

**FIGURE 7**